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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/016,661

10/29/2001

Remis Balaniuk

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EXAMINER

GEBRESILASSIE, KIBROM K

ART UNIT

PAPER NUMBER

2128

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/016,661

Applicant(s)

BALANIUK ET AL.

Examiner

Kibrom K. Gebresilassie

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>1/15/2007</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. This communication is responsive to the amended application filed on October 31, 2006.
2. Claims 1-35 are pending.
3. Claims 1, 4, 10, 13, and 22-30 are amended.

Response to Arguments

4. Regarding Applicants response to the Drawings: Applicants are submitted a New Sheet of drawing to show every feature of the invention specified in the claims. However, the features specified in the drawings do not have a support in the original disclosure. Therefore, the features that are indicated in the drawings are new matter. Accordingly, the objection is maintained [Further, see 35 USC 112, first paragraph, enablement and written description rejection].
5. Regarding Applicants amendment to the specification: Applicants are amended the specification to include the elements of the New Drawing provided. However, there is no support in the Original Specification to show every element indicated in the amended specification such as definition module, simulation module, rendering module, network environment and etc. Accordingly, the specification is objected [Further, see 35 USC 112, first paragraph, enablement and written description rejection].
6. Regarding Applicants response to Claim Objection: Applicants are amended the claim to overcome the objection mailed in the pervious office action for minor informalities. Accordingly, the objection is withdrawn.

7. Regarding Applicants response to 101 rejection: Examiner appreciate applicants for amending the claims to overcome the 35 USC 101 rejection. However, the tangible result is not fully resolved. Examiner suggested that if applicant moved Claim 4 such as "simulating interactive topological changes, volumetric modeling for homogenous and non-homogenous materials, and graphic and hepatic rendering" to every independent claims, the claimed invention could be statutory and have tangible result such as graphic and hepatic rendering. Accordingly, the rejection of claims 1-12, and 21-24 is maintained.

8. Regarding Indication of Allowability in the previous Office Action: The indicated allowability of claims 13-20, and 25-35 is withdrawn because they are rejected under 112, first paragraph, as failing to comply with the enablement requirement, and as failing to comply with the written description requirement.

Claim Objections

9. Claims 5, and 7 are objected to because of the following informalities:
- a. Regarding Claim 5: "...providing means for simulating deformation..." should be read as "~~.....providing means for simulating deformation....~~"
 - b. Regarding Claim 7: "...providing means for simulating elastic deformation...." Should be read as "~~.....providing means for simulating elastic deformation....~~" Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

Art Unit: 2128

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 13-20, and 25-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims were directed to a system, which comprised several component parts (such as means for discretising, means for providing, means for simulating, a model definition module, a simulation module, a rendering module, etc.). However, the original disclosure did not specify a particular system or apparatus intended to carry out each function. Because the original disclosure did not describe how the system elements be adaptable for use, unreasonable amount of work would be required to arrive at the detailed relationship applicants say that he/she has solved.

12. Claims 13-20, and 25- 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed invention has a means plus function language that used to define the characteristics or the function of the system or apparatus. The original disclosure should disclose implicitly or inherently the structure or materials that correspond to the recited function in order to perform the recited steps or functions. However, the original disclosure fails to include a written description for the system claims.

Application/Control Number: 10/016,661

Art Unit: 2128

MPEP 2106

"Where means plus function language is used to define the characteristics of a machine or manufacture invention, such language must be interpreted to read on only the structures or materials disclosed in the specification and 'equivalents thereof' that correspond to the recited function. Two en banc decisions of the Federal Circuit have made clear that the USPTO is to interpret means plus function language according to 35 U.S.C. § 112, sixth paragraph. In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (en banc); In re Alappat, 33 F.3d 1526, 1540, 31 USPQ2d 1545, 1554 (Fed. Cir. 1994) (en banc).


Disclosure may be express, implicit, or inherent. Thus, at the outset, USPTO personnel must attempt to correlate claimed means to elements set forth in the written description that perform the recited step or function. The written description includes the original specification and the drawings and USPTO personnel are to give the claimed means plus function limitations their broadest reasonable interpretation consistent with all corresponding structures or materials described in the specification and their equivalents including the manner in which the claimed functions are performed. See Kemco Sales, Inc. v. Control Papers Company, Inc., 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000)."

Art Unit: 2128

Conclusion

13. Claims 1-35 are rejected.
14. Any inquiring concerning this communication or earlier communication from the examiner should be directed to Kibrom K. Gebresilassie whose telephone number is (571) 272-8571. The examiner can normally be reached on Monday-Friday, 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Kamini S. Shah can be reached at (571) 272-2279. The official fax number is (571) 273-8300. Any inquiring of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is (571) 272-3700.

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